On June 4 a nest with four fresh eggs was found. On June 9, 15 and 28, three others of nine eggs each, respectively, were discovered, all the nests being suspended from the branches of stunted spruce trees. They were built of moss, fine strips of bark and heavily lined with feathers of various birds.

- 66. Hylocichla fuscescens fuscescens. Veery.— Not as common as the following species, but a few were seen at different points.
- 67. **Hylocichla guttata pallasi.** Hermit Thrush.— Abundant. A nest found on June 4 contained three fresh eggs. Two other nests were located June 14 and 16, each containing three fresh eggs. Another wonderful singer. It was worth making the trip just to hear the present species, the White-throated Sparrow, the Fox Sparrow and Ruby-crowned Kinglet sing their beautiful notes.
- 68. Planesticus migratorius migratorius. Robin.— Abundant everywhere. Nesting commonly the first week in June.

NOTES ON BIRDS BREEDING IN THE MOUNTAINS OF VIRGINIA.

BY H. B. BAILEY.

DURING a trip to the mountains of Virginia in July and August, 1910, I was struck by the large number of young birds seen daily on my tramps, and as many species were supposed to raise only one brood in our hot climate, I decided this season to find as many evidences of actual second and third broods as possible. With this object in view I visited Goshen the first week in June and was surprised to find every species had hatched their young and many laving again, thus being as far advanced as at our home on the seaboard. The following notes were made at Goshen, June 3-10; Massanetta Springs (near Harrisonburg), July 7-28, and August 16-30; Hot Springs, July 29-August 4; Old Sweet Springs (one mile over the border in West Virginia), August 6-15. The elevation is over 2000 feet, and the season was very hot and dry. Well kept farms predominate, the woods having generally been cut off. My principal disappointment was in not finding Juneos and Thrushes on the mountain tops. The species observed (especially

sparrows) were very abundant and our noble Virginia certainly did her share towards increasing the bird population. In the mountains Wild Turkeys, Ruffed Grouse, fox squirrels, foxes and wild cats are common. From the descriptions given me by farmers' boys, Eagles and Duck Hawks breed on the cliffs.

The following list is very incomplete but may form the nucleus for other observations during the heated term some future year.

1. Aix sponsa. Wood Duck.— Not rare. Saw young about half grown, July 10.

2. Butorides virescens. Green Heron.— Common; probably raises two broads.

3. Philohela minor. Woodcock.— Rare. Seen July 24. Boys say they nest in March.

4. Actitis macularius. Spotted Sandpiper.-- Not common; old and young together in June, July 14 and in August.

5. Oxyechus vociferus. KILLDEER.— Quite common; young flying July 10.

6. Colinus virginianus virginianus. Bob-white.— Abundant. Owing to the dry weather the young were two thirds grown July 7; second settings of eggs were destroyed July 29 when hay fields were cut, but the birds immediately went to laying again. They always desert the nest when cut around, even if a piece of cover is left over the nest. On August 25 a covey of young just able to fly was observed.

7. Bonasa umbellus umbellus. Ruffed Grouse.— Covey of young July 10. Not rare on mountains.

8. Meleagris gallopavo silvestris. WILD TURKEY.—Still common. I think much crossing is done in the wilder parts; many farmers are giving up the bronze variety, owing to their straying propensities.

9. Zenaidura macroura carolinensis. Mourning Dove.—Common. Young in all stages. July 16, fresh eggs.

10. Cathartes aura septentrionalis. Turkey Vulture.— Rather common; boys claim they build on the cliffs, and Buzzard roosts are common names on sides of several mountains.

11. Catharista urubu. BLACK VULTURE.— Commoner than the preceding.

12. Accipiter velox. Sharp-shinned Hawk.— Not common. July 10, nest with young ready to fly.

13. Accipiter cooperi. Cooper's Hawk.— Not common. Several seen. Not a favorite with farmers.

14. Buteo lineatus lineatus. Red-shouldered Hawk.— Breeds sparingly, and probably the Red-tailed Hawk also.

15. Falco sparverius sparverius. Sparrow Hawk.— Not common until August when young were full grown.

- 16. Aluco pratincola. BARN OWL.— One taken a few days before my arrival in an old barn.
 - 17. Strix varia varia. BARRED OWL. Rather common.
 - 18. Otus asio asio. Screech Owl.—Common.
- 19. **Bubo virginianus virginianus**. Great Horned Owl.— Common. Destructive to poultry where so many roost in trees, as very few farmers have regular houses for them.
- 20. Coccyzus americanus americanus. Yellow-billed Cuckoo. Rare. Young hatched July 7.
- 21. Coccyzus erythrophthalmus. Black-billed Cuckoo.— Not common. Two broods; feeding young in August.
- 22. Ceryle alcyon. Belted Kingfisher.—Common. No signs of a second brood.
- 23. **Dryobates villosus auduboni.** Hatry Woodpecker.— Rare, Only one brood.
- 24. Dryobates pubescens pubescens. Downy Woodpecker.—Two broods; small young in nest June 10.
- 25. Phlæotomus pileatus pileatus. Pileated Woodpecker.—Rarely seen; heard often, and one seen August 2.
- 26. Melanerpes erythrocephalus. Red-headed Woodpecker.—Very common. Possibly three broods. July 7, nest contained eggs which hatched the 10th; young left the nest on the 20th; seen feeding young in August.
- 27. Centurus carolinus. Red-bellied Woodpecker.— Not common. Only one brood.
- 28. Colaptes auratus auratus. FLICKER.— Common. Raises two broods.
- 29. Antrostomus vociferus vociferus. Whip-poor-will.— Raises two broods. Eggs, July 7; hatched 10th; not heard calling after 15th.
- 30. Chordeiles virginianus virginianus. Nighthawk.— Two broods. Not heard after July 23.
- 31. Chætura pelagica. Chimney Swift.— Very common. One nested inside of an old mill; young gone July 10.
- 32. Archilochus colubris. Ruby-throated Hummingbird.—Abundant. No signs of second brood.
 - 33. Tyrannus tyrannus. Kingbird.— Common; two broods.
- 34. **Myiarchus crinitus.** Crested Flycatcher.—Common. Feeding young in August.
- 35. Sayornis phœbe. Phœbe.— Abundant. June 6, young in all stages and fresh eggs. July 7, young in nest; feeding young in August.
- 36. **Myiochanes virens.** Wood Pewee.— Undoubtedly two broods. Still singing Aug. 6.
- 37. **Empidonax virescens.** ACADIAN FLYCATCHER.— Rare. One heard and seen at Goshen in June and at Hot Springs in August; probably commoner in suitable localities near water.
- 38. Empidonax minimus. Least Flycatcher.— Rare. July 10 one heard and seen in an Orchard.

- 39. Cyanocitta cristata cristata. Blue Jay.— Abundant. No signs of second brood.
- 40. Corvus brachyrhynchos brachyrhynchos. Crow.— Abundant. One brood how fortunate!
- 41. Molothrus ater ater. Cowbird.— Young birds common July 7; but I have never found their eggs in late settings.
- 42. Agelaius phœniceus phœniceus. Red-winged Blackbird.—Very common. Young in nest July 7; eggs hatching July 15.
- 43. Sturnella magna magna. Meadowlark.—Common. Nest and eggs found July 20; destroyed by hogs; July 22–23, new nest, female flushed.
 - 44. Icterus spurius. Orchard Oriole.— Common. Two broods.
 - 45. Icterus galbula. Baltimore Oriole.—Rare; only one seen.
- 46. Quiscalus quiscula æneus. Bronzed Grackle.— Feeding young July 23.
- 47. Astragalinus tristis tristis. Goldfingh.—Abundant. No signs of breeding until Aug. 10, at Old Sweet Springs, when a nest with 4 eggs, and one with 6 eggs were found.
- 48. Passer domesticus. English Sparrow.— Everywhere. Aug. 25, many young in nests in the top of an old shed.
- 49. Poœcetes gramineus gramineus. Vesper Sparrow.— Very common. Raises probably three broods. Large young June 6; fresh eggs July 7-17, Aug. 2, and young in nests.
- 50. Ammodramus savannarum australis. Grasshopper Spar-Row.— Very common. Large young flying June 10 and July 7; fresh eggs July 29; singing all through August.
- 51. Passerherbulus henslowi henslowi. Henslow's Sparrow.—Very common at Massanetta; young abundant July and August; 3 eggs, July 16.
- 52. Spizella passerina passerina. Chipping Sparrow.— Abundant. Two and three broods; young in nests June, July and August.
- 53. Spizella pusilla pusilla. Field Sparrow.—Very common. Three broods. Eggs, July 27, August 1, August 20; young in nests June, July, and August.
- 54. **Melospiza melodia melodia.** Song Sparrow.— Very common. Three broods. Eggs, July 9-27. Young hatched the 9th, left nest on the 20th; young in nests July and August.
- 55. Pipilo erythrophthalmus erythrophthalmus. Towhee.—Common. Two broods; feeding young July 10.
- 56. Cardinalis cardinalis cardinalis. Cardinal.— Common. Young in nest July 27.
- 57. Guiraca cærulea cærulea. Blue Grosbeak.— Two or three broods; young in nest July 10-August 2.
- 58. Passerina cyanea. Indigo Bunting.—Common. Three broods. Young and eggs, June 6, and in July; feeding young August 1.

- 59. Piranga erythromelas. Scarlet Tanager.—Rare at Goshen in June; rare at Hot Springs.
- 60. Piranga rubra rubra. Summer Tanager.— Several seen in oak woods, in June and July.
- 61. Progne subis subis. Purple Martin.— Not many boxes are put up for them.
- 62. Petrochelidon lunifrons lunifrons.— CLIFF SWALLOW.— Only one colony on a barn by the river.
- 63. Hirundo erythrogastra. Barn Swallow.— Abundant. All nests were empty July 10.
 - 64. Riparia riparia. Bank Swallow.— Only seen by the river.
- 65. **Bombycilla cedrorum.** CEDAR WAXWING.— Common. June, July, and August. No signs of building until a nest was found building July 29, in an orchard. August 4 contained four eggs.
- 66. Vireosylva olivacea. Red-eyed Vireo.— Very common. Eggs and young in June; mostly silent after July 10.
 - 67. Vireosylva gilva gilva. Warbling Vireo.— Rare.
- 68. Lanivireo flavifrons. Yellow-throated Vireo.— Nest in maple July 15, young just leaving.
- 69. Vireo griseus griseus. White-Eyed Vireo.— Rather rare at Goshen in June; not heard afterwards.
- 70. Mniotilta varia. Black and White Warbler.— Common. Not singing after June.
- 71. **Dendroica æstiva æstiva.** Yellow Warbler.— Very common, breeding near houses; still singing August 1.
- 72. **Dendroica vigorsi**. PINE WARBLER.— Common in pine woods; rarely heard in July.
- 73. **Dendroica discolor.** Prairie Warbler.— Common. Stopped singing July 13.
- 74. Seiurus aurocapillus. Oven-Bird.— Young in nest July 10; none singing later.
- 75. Seiurus motacilla. Louisiana Water-Thrush.— Heard singing at Hot Springs in a deep glen, August 4; common at Goshen in June.
- 76. Geothlypis trichas trichas. Maryland Yellow-throat.—Rare at Goshen in June; not seen nor heard later.
- 77. Icteria virens virens. Yellow-breasted Chat.— Common. Stopped singing July 18.
- 78. Wilsonia citrina. Hooded Warbler.—Common in June; none heard later on.
- 79. Setophaga ruticilla. Redstart.—Rather rare. Not heard after July 10; feeding young August 4.
- 80. Mimus polyglottos polyglottus. Mockingbird.— Rare. Young in nest July 24; very common around Staunton July 28.
- 81. **Dumetella carolinensis**. Catbird.—Abundant. Three broods; young still in nest August 1.

- 82. Toxostoma rufum. Brown Thrasher.— Very common. Young in nest July 17.
- 83. Thryothorus ludovicianus ludovicianus. Carolina Wren.—Not common. Eggs June 6; feeding young August 6.
- 84. Thryomanes bewickii bewickii. Bewick's Wren.—Rare. Young hatched June 3; singing in July.
- 85. Troglodytes aëdon aëdon. House Wren.—Common. Young in nest July 27.
- 86. Sitta carolinensis carolinensis. White-breasted Nuthatch.

 Common. No signs of second brood.
- 87. Sitta pusilla. Brown-headed Nuthatch.—Rare at Massanetta in July; seen at Goshen in June.
- 88. **Bæolophus bicolor.** Tufted Titmouse.— Rather common; large young in June.
- 89. Penthestes carolinensis carolinensis. CAROLINA CHICKADEE.

 Common. Apparently raise only one brood.
- 90. Polioptila cærulea cærulea. Blue-gray Gnatcatcher.—Common. Not singing after June 6.
- 91. **Hylocichla mustelina.** Wood Thrush.— Common. June 6, eggs and young in nest and flying; July 26, young in nest. Silent after July 15.
- 92. Hylocichla fuscescens fuscescens. VEERY.— Rare; heard only at Hot Springs, August 4.
- 93. Planesticus migratorius migratorius. Robin.— Very abundant; probably three broods.
- 94. Sialia sialis sialis. Bluebird.— Abundant. Eggs hatching July 16, and large young, same date.